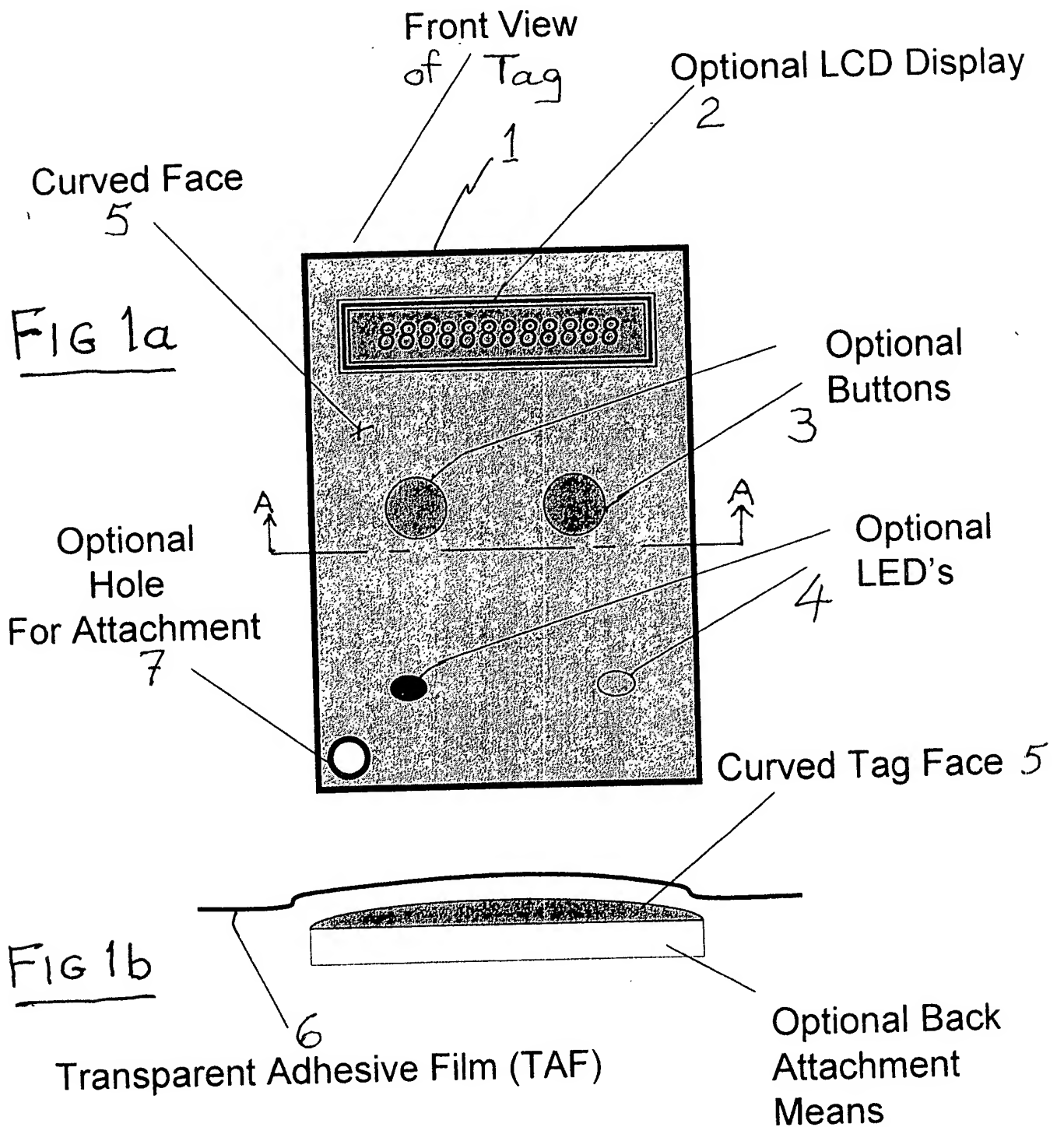
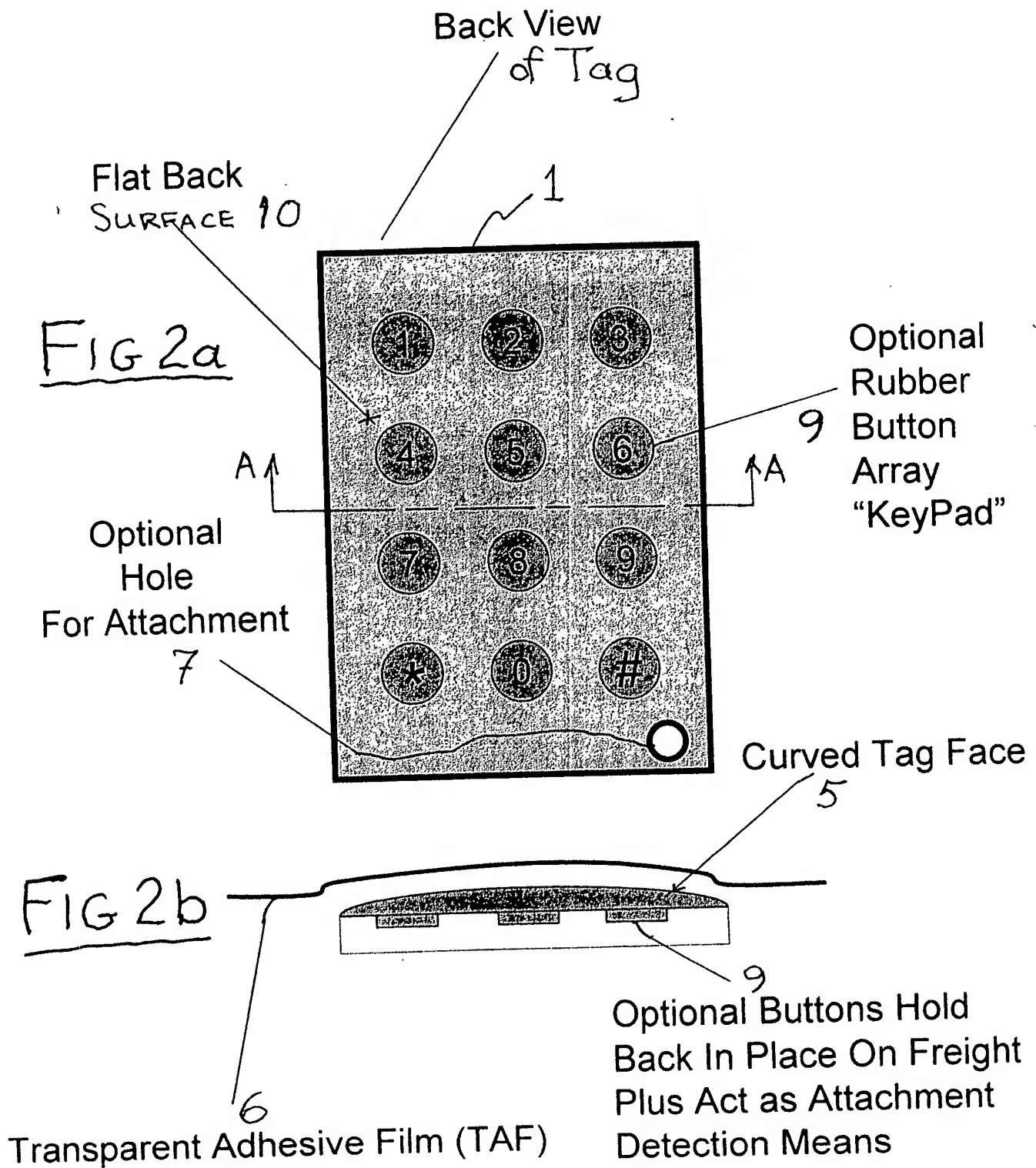


# RF Freight Damage Alert Tag



# RF Freight Damage Alert Tag



# Freight Damage Alert Tag

FIG 3b

Flat Back  
10

Side View

Curved Face  
5

Damage Alert Tag 1  
Under TAF

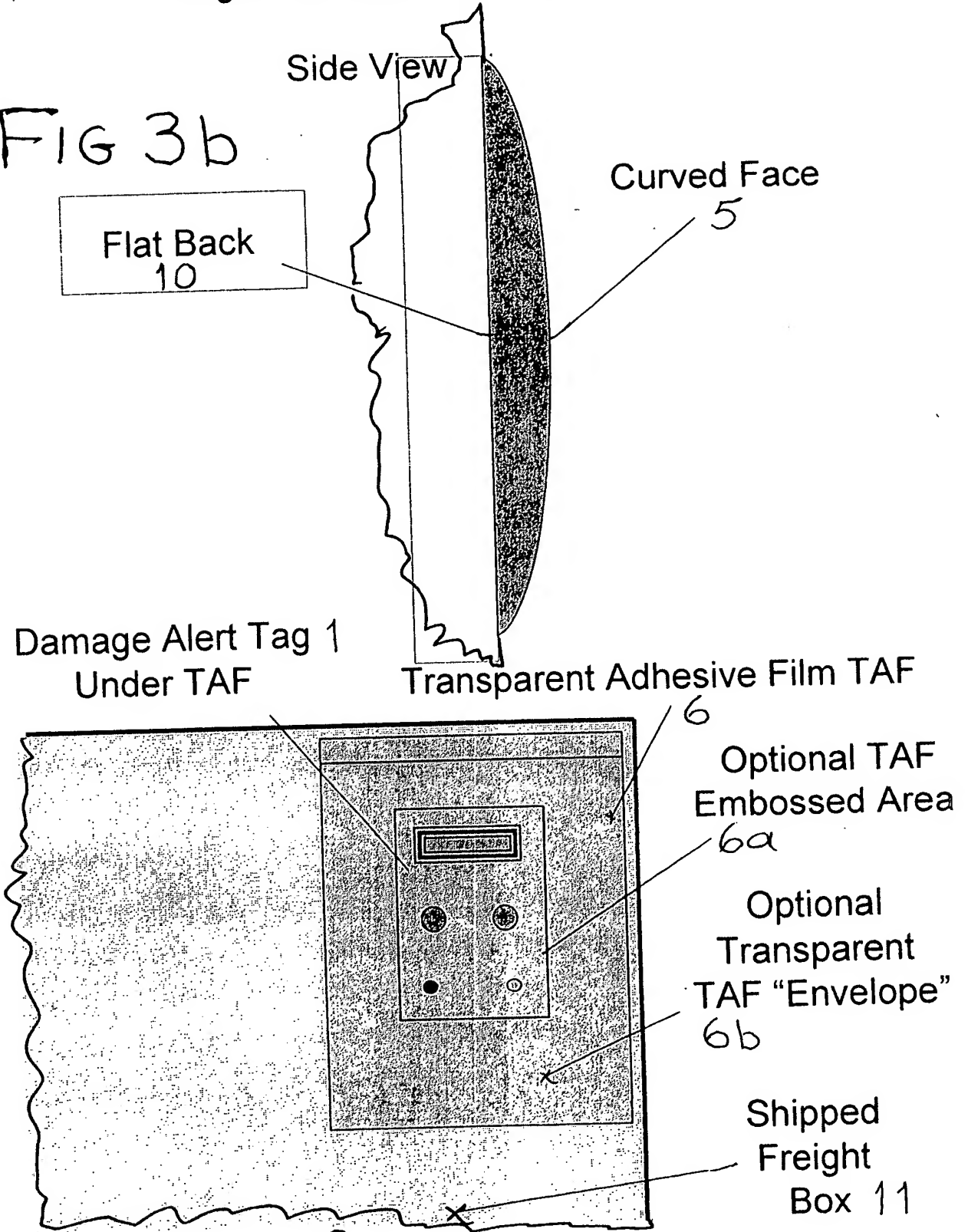
Transparent Adhesive Film TAF  
6

Optional TAF  
Embossed Area  
6a

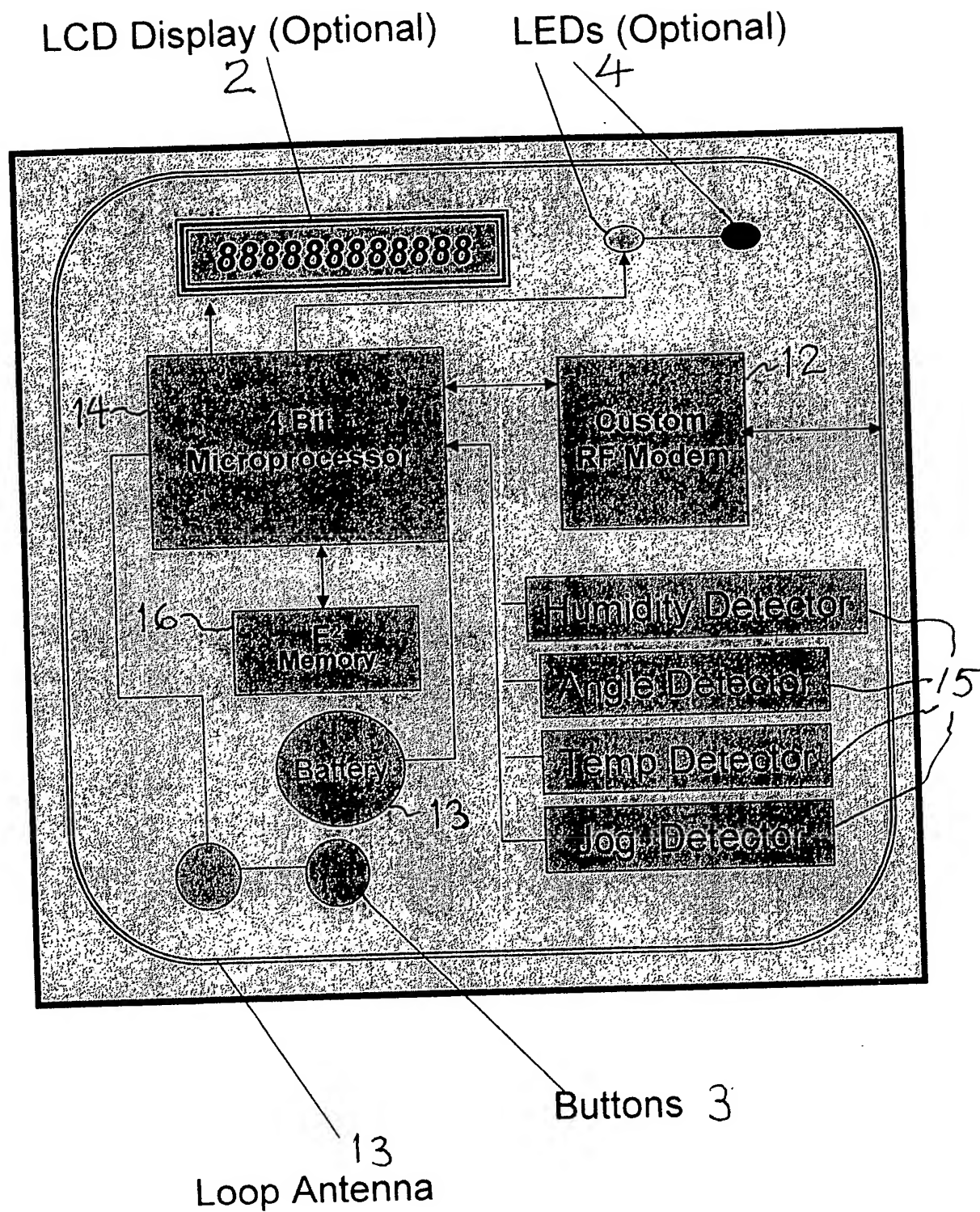
Optional  
Transparent  
TAF "Envelope"  
6b

Shipped  
Freight  
Box 11

FIG 3a



# Freight Damage Alert Tag Block Diagram



**Figure 4**

Warehouse Network of Tags  
Placed on Freight

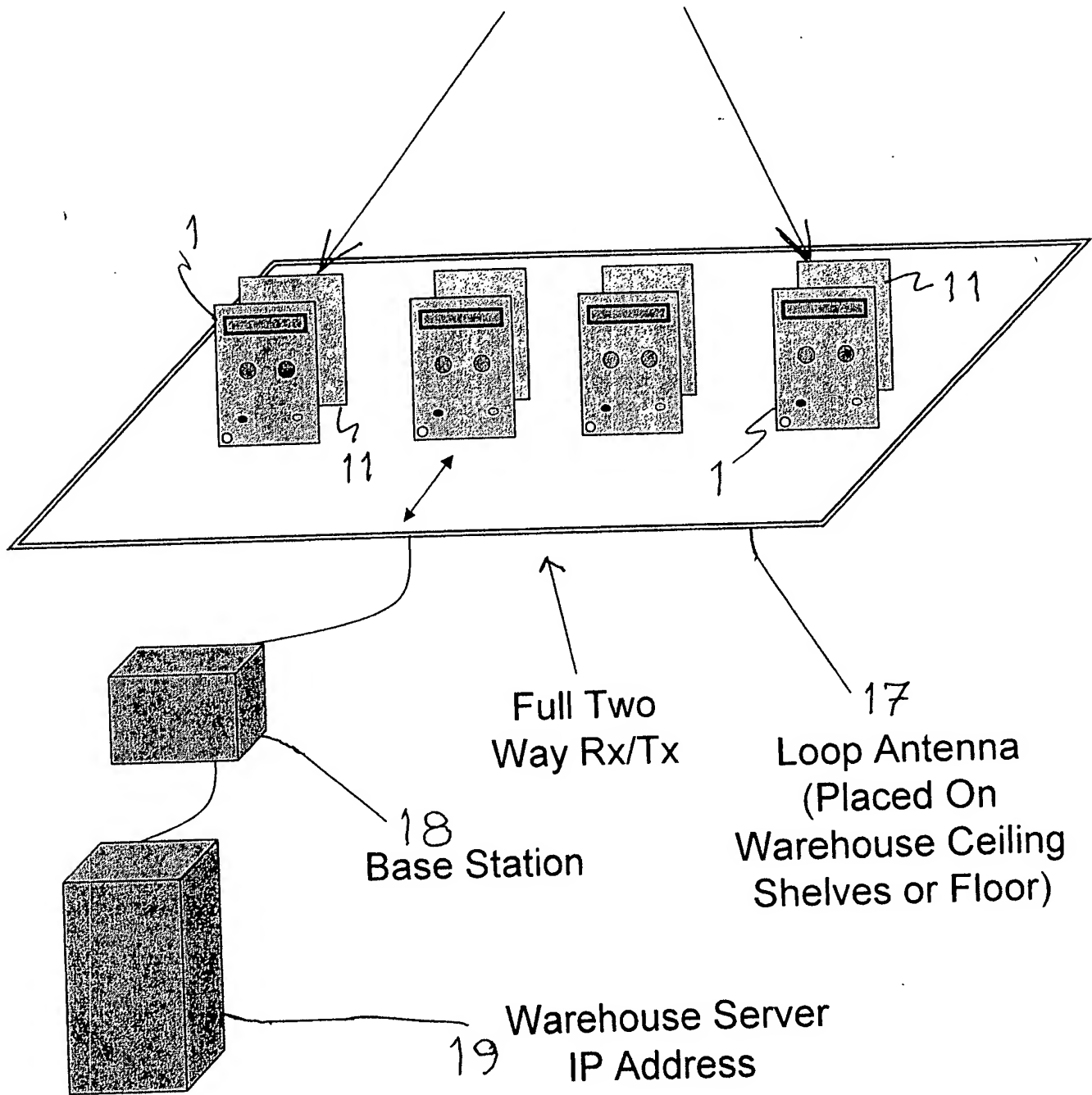
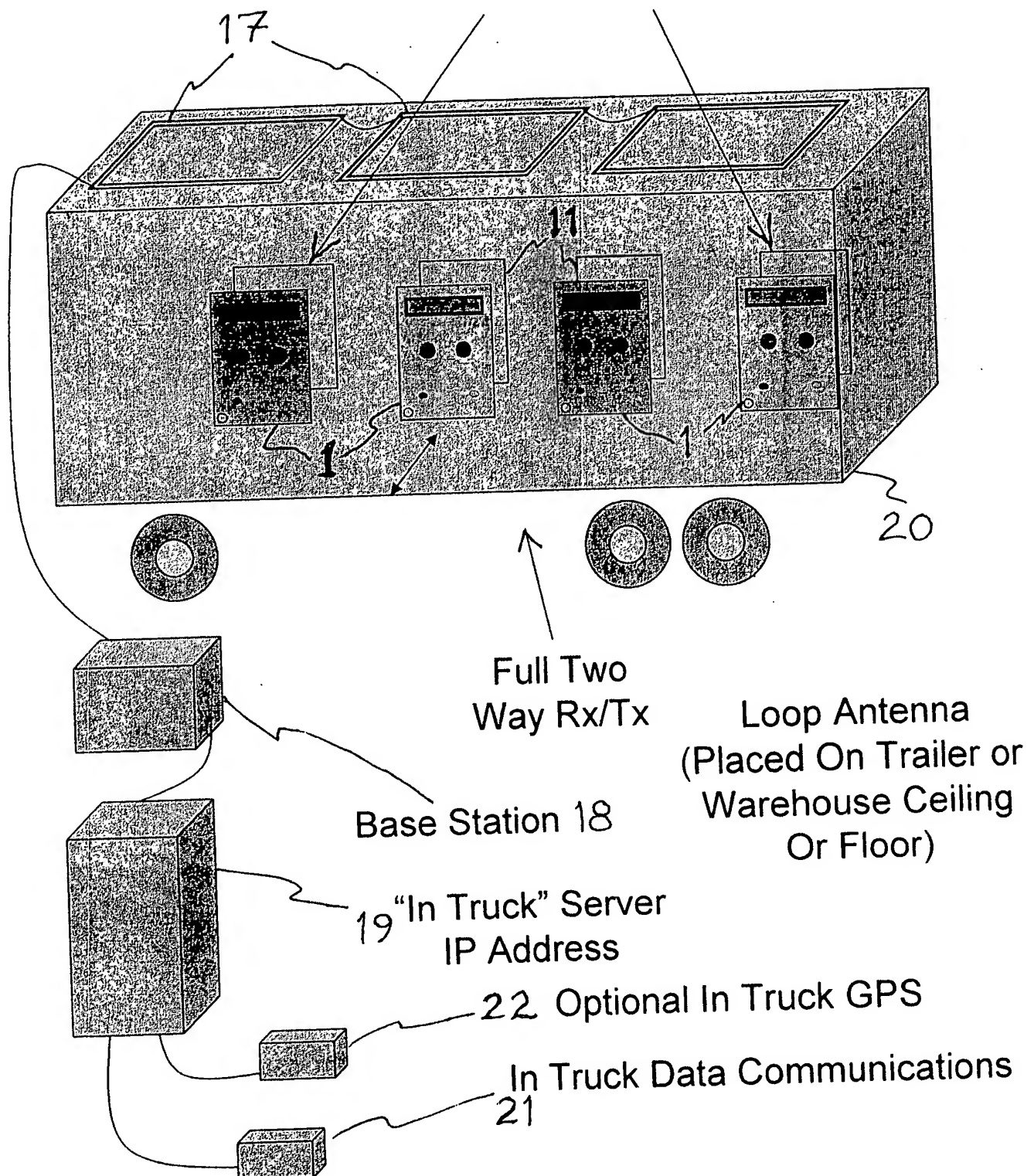


Figure 5

# Warehouse Network of Tags 1 Placed on Freight 11



**Figure 6**

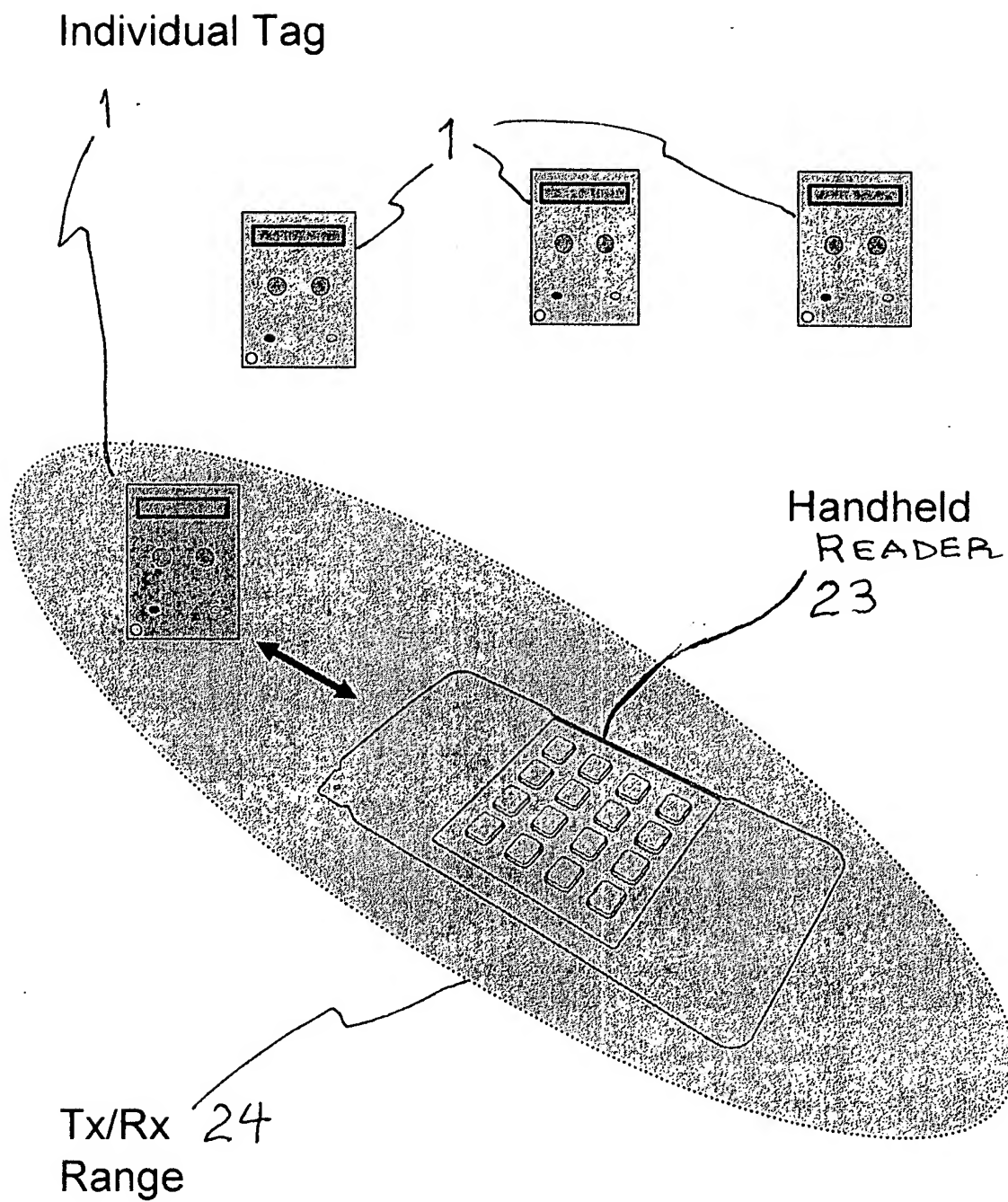


Figure 7



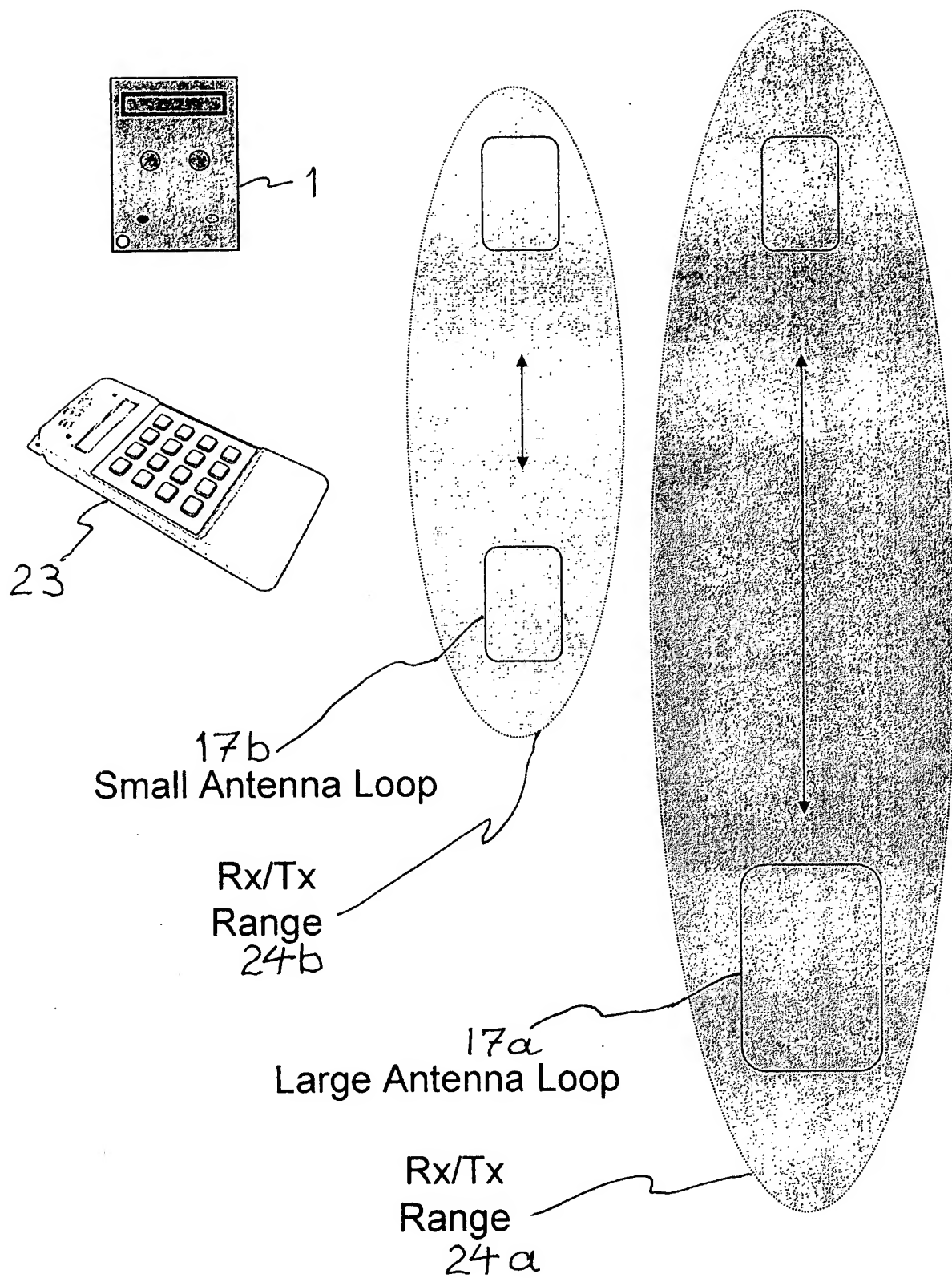
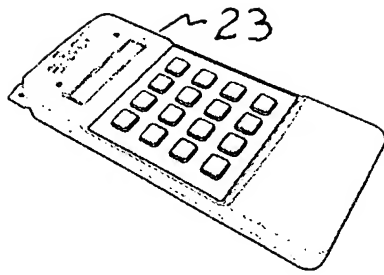
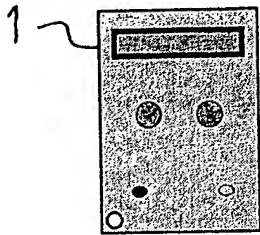


Figure 8

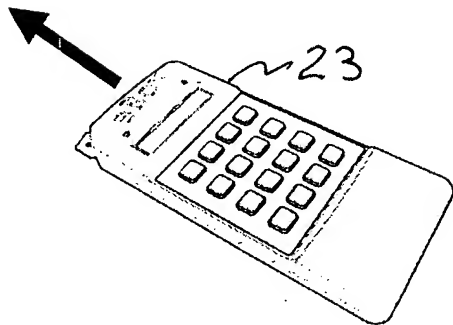




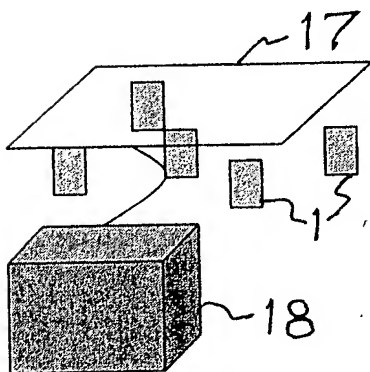
Step 1  
Handheld Reads  
Way Bill Barcode  
Or ID in Warehouse



Step 2  
Tag Placed On Freight +  
Function + ID  
Programmed  
Via Handheld



Step 3  
Handheld Transfers  
Data  
To Server (Hardline or  
Loop Modem)



Step 4  
Server + Base Station  
Interrogates Tags Via  
Base Station  
Confirms ID + Status  
In Truck + Warehouse

Figure 9

## Tag Functions and Features

1. Internal Transaction Data Log (Reads Writes + GPS)
2. Internal Temp Data Log (one month @ 1/hr)
3. Internal Humidity Data Log (one month @ 1/hr)
4. Internal Tilt Data Log (Events Log as needed)
5. Internal Jog Data Log (Events Log as needed)
6. Paperless Electronic Waybill
7. Automatic Freight Sort Based on Electronic Waybill
8. Real Time Freight Tracking (Trucks + Warehouse)
9. Real Time Truck Manifest
10. Real Time Data Logs
11. Real Time Web Enabled Reports ("8 -"11").
12. Pick/Put Sorts of Freight (LED based)
13. Low Cost Tags (4 micron CMOS IC's)
14. Low Power Extended Battery Life (15 years)
15. Low Cost Handhelds
16. Network of Tags within Loop
17. Individual Tag Reads and Writes (e.g. Conveyor)
18. Fully Programmable ID
19. No Fixed ID Required
20. Tags Secure On Package Using TAF
21. Tags "Retrievable" upon Delivery
22. Tags "Reusable" 100,000 or more transactions.

**Figure 10**